REMARKS

Reconsideration of the application and claims in light of the following remarks is respectfully requested.

I. Status of the Claims

Claim 29 has been amended to place it in better form. No new matter has been added.

Claims 29-33 are currently pending in this application.

II. Examiner Interview

Applicant thanks Examiner Mancho for all the courtesies extended to Applicant's representative, James C. Signor, during the telephonic interview of July 17, 2009. Claim 29 was discussed, in particular, the consecutive "means for" language, which Applicant addresses by amendment in this response. Since the same structure, the vehicle surroundings monitoring apparatus, performs each of the functions, it was agreed that the consecutive "means for" language would be removed to make the claim more clear.

In addition, the "sixth means for adjusting the parameter in a case where any forward traveling object other than the preceding vehicle has been judged" in view of Saneyoshi was discussed, in particular, with reference to the histogram shown in Fig. 13 thereof. Applicant argued that the histogram consisted of numerous parameters, each of which was calculated only once per measurement based on the number of object data points appearing at a particular point in space and corresponding to a single object only. It was agreed that, to anticipate claim 29, Saneyoshi must disclose a parameter (i.e., a variable that is set to a specific numerical)[1] that is set according to the position of a preceding vehicle and whose value is adjusted at least based on the presence of an object other than the preceding vehicle.

---

[1] "parameter ": *Computers.* a variable that must be given a specific value during the execution of a program or of a procedure within a program. Dictionary.com Unabridged (v 1.1). Random House, Inc. 03 Aug. 2009. <Dictionary.com http://dictionary.reference.com/browse/parameter>

III. Advisory Action

As set forth on a continuation sheet of the Advisory Action issued September 1, 2009, the Examiner contends that claim 29 was changed from an apparatus claim to a method claim in the Amendment filed August 5, 2009, which was not entered. Applicants respectfully disagree. During the Examiner Interview of July 17, 2009 the consecutive "means for" language was discussed. Since the same structure, the vehicle surroundings monitoring apparatus, performs each of the functions, it was agreed that the consecutive "means for" language would be removed to make the claim more clear. Accordingly, claim 29 has been amended to recite that the vehicle surroundings monitoring apparatus has a vehicle surroundings monitoring program configured to perform the different functions. It is respectfully submitted that an embodiment of the vehicle surroundings monitoring apparatus with the vehicle surroundings monitoring program having a configuration to perform each of the steps is fully described from paragraphs [0025] – [0078] of the publication of the present application, Publication No. 2004/0060756, and illustrated in the schematic flow diagrams of FIGS. 2-4.

For example, the vehicle surroundings monitoring program recognizes solid object information ahead of the vehicle from input images taken by a stereoscopic camera. See paragraph [0027]. The program follows the logic steps of FIG. 3 to estimate a travel path of the vehicle, for example, using the positions of certain solid object information (see paragraphs [0030] – [0037]) or input signals from the vehicle's yaw rate sensor, vehicle speed sensor and steering wheel angle sensor (see paragraphs [0019], [0020], [0038] and [0039]). Using the detected solid object information, the program determines the position of a preceding vehicle and forward moving objects other than the preceding vehicle. See paragraphs [0028] and [0050]. The value of a parameter TIME is set by the program based on a forward (Z coordinate) and lateral (X coordinate) of the preceding vehicle. See paragraphs [0057] – [0075]. The set numerical value of parameter TIME is then adjusted (for example, upwards by 10) where forward traveling objects other than preceding vehicle were detected. See paragraphs [0076] and [0077]. By comparing the resulting numerical value of TIME to a predetermined threshold value, the program outputs a signal indicating the possibility of evacuation of the preceding vehicle. See paragraph [0078].

The Examiner also contends the August 5th Amendment may raise issues under 35 U.S.C. § 101 because the structure "performing the newly claimed steps" is not indicated. However, claim 29 as set forth in the August 5th Amendment, which was not entered and which is supplanted by the current Preliminary Amendment, was directed to a vehicle surroundings monitoring apparatus having a vehicle surroundings monitoring program configured to perform a plurality of functions. To further clarify the configuration of the vehicle surroundings monitoring program, which is fully supported by the specification as described above, claim 29 has been amended herein to indicate the particular structures, such as the camera, used to perform the functions. Because claim 29 is an apparatus claim and since the vehicle surroundings monitoring program is tied to the vehicle and structures thereof, it constitutes patentable subject matter under 35 U.S.C. § 101. See *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008).

Further, the Examiner contends that "a parameter as newly argued is not supported or defined in the specification." Applicants respectfully disagree. First, Applicants have always maintained that a parameter is a term well known in the art to refer to a numerical value which can be varied. As set forth in the response to the Final Office Action dated February 25, 2008, Applicants described:

> As generally known in the field of control systems, a parameter is "a quantity [or] property treated as a constant but which may sometimes vary or be adjusted." In the present invention, the parameter is set as a numerical counter "TIME". The specification explains that, "the aforesaid judging counter TIME is for expressing the possibility of evacuation of the preceding vehicle numerically." Paragraph [0053].

Moreover, the words of a claim are to be given their ordinary meaning absent evidence that a contrary meaning was intended. See Manual of Patent Examination Procedure (MPEP) Section 2111.01. As the above definitions make clear, an ordinarily skilled artisan would understand that a parameter is a numerical value. Further, the present specification fully supports this understanding since TIME is set to a numerical value, for example, 0 (see paragraph [0059]) and is adjusted to a

different numerical value based on the presence of objects other than the preceding vehicle, for example, from 0 to 10 (see paragraph [0077]).

IV. Rejections under 35 U.S.C. § 102

Claims 29-33 were rejected under 32 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,122,597 to Saneyoshi et al. ("Saneyoshi"). Applicant respectfully traverses the rejection.

Claim 29 recites that the vehicle surroundings monitoring program is configured to set a parameter in response to the position of a preceding vehicle and "adjust the parameter in a case where any forward traveling object other than the preceding vehicle has been judged." In this way, the present invention provides for the possibility of collision with respect to multiple objects based on a single numerical indicator. Applicants respectfully submit that Saneyoshi does not describe any parameter that is set based on the position of the preceding vehicle and later adjusted based on the presence of another object.

The Examiner contends that the histogram shown in Fig. 13 of Saneyoshi showing frequency (which Applicant notes is the number of object data points appearing at a specific deviation amount and at a specific width-wise lattice; it is not the inverse of time) is the parameter that is adjusted. Detailed Action, Page 5. However, as set forth below, the histogram is not a parameter, but rather a representation of multiple parameters, each of which is set only once independently for an individual object and is never adjusted from its initially set numerical value.

Saneyoshi describes dividing the distance image (Fig. 7) into groups having approximately the same deviation amount (forward distance) and extracting object data for picture elements located above the road surface and having sufficient group size by comparing adjacent blocks of the distance image (Fig. 8). Saneyoshi, Figs. 7 and 8 and col. 3, lines 29-39. The distance image is then divided into a plurality of lattices (Fig. 11), each lattice corresponding to a width of a block (width-wise position, i, Fig. 8), and a histogram is prepared for each lattice (Fig. 13). Saneyoshi, Figs. 8, 11 and 13 and col. 8, lines 11-22. Because false data is eliminated where multiple blocks can not be grouped together, each block (i.e., width of each lattice) is smaller than the size of an

object (i.e., 4 to 10 blocks are required to recognize a single object); thus, each lattice for which a histogram is prepared can contain only one object at a certain deviation amount (i.e., one object only at Z1 and one object only at Z2). Saneyoshi, col. 7, lines 61-65. Therefore, while there may be multiple objects appearing at the same deviation amount in front of the vehicle (e.g., the bike and the pedestrian in Fig. 12 or 14), the frequency of their object data within that deviation amount is calculated separately each time a measurement is taken because they must appear in different width-wise lattices; this is why they do not appear on the same histogram. Saneyoshi, Figs. 12-14 and col. 6, lines 58-65. In the histogram of Fig. 13, a portion of the pedestrian and the preceding vehicle appear in the same width-wise lattice (see Fig. 12), and their height-wise object data is calculated at their deviation amount once only to determine if it exceeds the threshold value. Saneyoshi, Figs 12 and 13 and col. 8, lines 31-43. Each deviation division of each lattice is therefore a single, separate measurement. Further, even if the pedestrian was sitting on the trunk of the car at the time of measurement, Saneyoshi only describes measuring the number of object data points within a particular lattice and at a particular deviation amount once only; thus, Z2 would merely be initially set to a higher value. Accordingly, no value is ever set in response to the position of an object and later adjusted to a different value based on the presence of another object.

Additionally, the Examiner contends that the "two spikes" at Z2 in Fig. 13 of represents some form of adjustment of a parameter. Detailed Action, Page 5. However, Applicant respectfully point out that it is clear from Saneyoshi and the foregoing description that the second spike immediately after Z2 is merely the separate measurement at the subsequent deviation amount and is higher than Z2 because more object data appear at that deviation amount as the car gets taller at that point past the trunk. Further, the Examiner relies on col. 5, lines 50-56 of Saneyoshi as disclosing the parameter which is adjusted. Detailed Action, Page 3. However, Saneyoshi is merely describing that the location of each object is extracted separately using the single measurement described above to determine the possibility of a collision therewith. Saneyoshi, col. 5, lines 50-56.

Because Saneyoshi at least does not describe a parameter that is set based on the position of a preceding vehicle and adjusted based on the presence of another object, it can not anticipate claim

29, or any of its dependent claims 30-33. Reconsideration and withdrawal of the rejections of claims 29-33 under 32 U.S.C. § 102(b) is therefore respectfully requested.

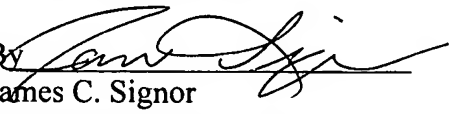
CONCLUSION

In view of the foregoing amendments and remarks, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

If there are any other issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

Dated: September 14, 2009

Respectfully submitted,

By 

James C. Signor
Registration No.: 59,233
DARBY & DARBY P.C.
P.O. Box 770
Church Street Station
New York, New York 10008-0770
(212) 527-7700
(212) 527-7701 (Fax)
Attorneys/Agents For Applicant